



MONTHLY AIR QUALITY REPORT FOR OCTOBER 2013

AOI COLOR SCALE

GOOD 0-50	MODERATE 51-100	UNHEALTHY FOR SENSITIVE GROUPS 101-150	UNHEALTHY 151-200
	VERY UNHEALTHY 201-300	HAZARDOUS 301-500	

Calendar of maximum AQI values & their corresponding color for October 2013*

*Preliminary data

SAMPLE POLLUTANT REPORTING BOX

1 (day of month)	O3	CO
	PM10	PM2.5

SUN			MON			TUES			WED			THU			FRI			SAT			
						1	50	10	2	43	07	3	42	09	4	49	05	5	42	05	
						59	31	44		27	49		23	42		24	36		15		
6	47	09	7	51	13	8	47	17	9	36	07	10	43	06	11	48	09	12	47	16	
	46	25		52	32		57	36		118	36		27	24		31	32		37	56	
13	50	16	14	58	07	15	51	10	16	48	07	17	47	10	18	47	11	19	47	18	
	33	36		40	32		43	31		42	29		50	37		52	27		51	51	
20	49	14	21	51	13	22	47	16	23	50	18	24	46	14	25	46	18	26	43	19	
	47	42		61	42		64	40		64	44		63	42		66	44		49	53	
27	46	21	28	36	08	29	35	06	30	40	07	31	41	13							
	37	37		59	25		60	25		39	22		51	36							

Calendar of High Pollution Advisories and Health Watches issued during October 2013

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
6	7	8	9 A	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28 D	29	30	31		

LEGEND

HIGH POLLUTION ADVISORIES

A = PM-10 High Pollution Advisory
B = PM-2.5 High Pollution Advisory
C = Ozone High Pollution Advisory

HEALTH WATCHES

D = PM-10 Health Watch
E = PM-2.5 Health Watch
F = Ozone Health Watch

Calendar of Meteorological Conditions observed in Metro Phoenix during October 2013

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
6	7 E	8	9 D	10 A B C	11	12 E F
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28 D	29	30	31 E		

LEGEND

ELECTROMETEORS

A = Thunderstorm

HYDROMETEORS

B = Rain/Drizzle/Hail
C = Fog

LITHOMETEORS

D = Blowing Dust
E = Haze (vsby <10SM)
F = Smoke

Exceedance days during OCT 2013-

Total=	1	<u>Date</u>	<u>Max AQI</u>	<u>Pollutant</u>	<u>Site/s</u>
		10/09	118	PM-10	West Chandler

Health Watches issued during OCT 2013-

Total=	1	<u>Date</u>	<u>Max AQI</u>	<u>Pollutant</u>	<u>Site/s</u>
		10/28	59	PM-10	Buckeye

High Pollution Advisories issued during OCT 2013-

Total=	1	<u>Date</u>	<u>Max AQI</u>	<u>Pollutant</u>	<u>Site/s</u>
		10/09	118	PM-10	West Chandler

<u>Concentration Recap:</u>	Days in the Good category:	13
	Days in the Moderate category:	17
	Days in the Unhealthy for Sensitive Groups category:	1
	Days in the Unhealthy category:	0
	Days in the Very Unhealthy category:	0
	Days in the Hazardous category:	0
	Total Forecast Days:	31

Narrative: The air pollution picture for the Phoenix metro area was pretty benign during October 2013 with highest concentrations of all air pollutants that correlated with readings either in the good or low-moderate range of the Air Quality Index during the entire month – outside of one exception. On the 9th a major upper level trough and surface cold front in the mid-latitude storm track approached the Valley from the west. In response gradient winds over the local area increased significantly by late morning and between 10:00 a.m. and 7:00 p.m. sustained southwesterly winds between 10 and 30 mph with gusts as high as 44 mph occurred. This situation generated a large amount of blowing and suspended dust between 11:00 a.m. and 8:00 p.m. that lowered local visibilities to as low as 2 1/2 miles at times. The end result was an exceedance of the PM-10 (coarse particle) health standard at the West Chandler monitoring site where an hourly PM-10 concentration as high as 998ug/m³ was recorded at 4:00 p.m. This in turn contributed to a 24-hour average concentration of 189.2ug/m³ which is within the Unhealthy for Sensitive Groups range of the Air Quality Index. It should be noted that the National Weather Service in Phoenix had issued a local Wind Advisory for this event and that the Arizona Department of Environment Quality had issued a PM-10 High Pollution Advisory -- both of which verified. -Reith